

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW FULL-TRAFFIC-ACTUATED CONTROL SIGNAL AT THE INTERSECTION OF MD 256 AND FRANKLIN MANOR ROAD IN ANNE ARUNDEL COUNTY, MD 256 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 256 APPROACHES OPERATING CONCURRENTLY AND THE FRANKLIN MANOR ROAD APPROACH OPERATING ALONE.

EXCLUSIVE/PERMISSIVE LEFT-TURN LAG PHASING IS PROVIDED FOR SOUTHBOUND MD 256 APPROACH.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

ITEM NO.	QUANTITY	DESCRIPTION
9002	2 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9087	1 EACH	EIGHT-PHASE, FULL TRAFFIC ACTUATED CONTROLLER WITH INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET
9089	78 S.F.	SHEET ALUMINUM SIGNS CONSISTING OF: <ul style="list-style-type: none">- 1 EACH R10-12 SIGN (36 IN. X 42 IN.) - MAST ARM MOUNT- 2 EACH W3-3 SIGN (36 IN. X 36 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) AND FLAG - GROUND MOUNT- 1 EACH M95-1 (78 IN. X 24 IN.) - MAST ARM MOUNT- 2 EACH D-3(1) SIGN "FRANKLIN MANOR RD" (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
2002	2 CY	TEST PIT EXCAVATION
5005	60 LF	24 IN WHITE HEAT APPLIED THERMOPLASTIC PAVEMENT MARKING
5008	50 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
8006	4 EA	CUT, CLEAN AND CAP TRAFFIC SIGNAL STRUCTURE
8011	22 EA	FURNISH & INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8019	3 EA	FURNISH & INSTALL 8 IN. VEHICULAR SIGNAL HEAD SECTION
8020	1 EA	FURNISH & INSTALL CONTROL AND DISTRIBUTION EQUIPMENT FOR SIGNAL
8021	1 EA	FURNISH & INSTALL MAST ARM POLE & 38 FT. MAST ARM
8028	2 EA	FURNISH & INSTALL MICRO PROBE SET 1000 FT LEAD-IN
8029	1 EA	FURNISH & INSTALL MICRO PROBE SET 500 FT LEAD-IN
8036	1 EA	FURNISH & INSTALL TWIN MAST ARM POLE (15' T) & 50 FT/ 50 FT. MAST ARM
8048	1 EA	REMOVE & DISPOSE MATERIAL & EQUIPMENT PER ASSIGN
8051	30 LF	FURNISH & INSTALL 3 IN. PVC SCHEDULE 80 CONDUIT- TRENCHED
8052	135 LF	FURNISH & INSTALL 4 IN. PVC SCHEDULE 80 CONDUIT- BORED
8053	90 LF	FURNISH & INSTALL 4 IN. PVC SCHEDULE 80 CONDUIT- TRENCHED
8057	8 CY	FURNISH & INSTALL CONCRETE FOR SIGNAL FOUNDATION
8059	40 LF	FURNISH & INSTALL WOOD SIGN SUPPORTS 4 IN. x 6 IN.
8060	125 LF	FURNISH & INSTALL NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8062	55 LF	FURNISH & INSTALL 1 IN. ELECTRICAL CONDUIT - GALVANIZED SLEEVE
8068	10 LF	FURNISH & INSTALL 1 INCH LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8070	45 LF	FURNISH & INSTALL ELECTRICAL CABLE - 1 CONDUCTOR (NO. 4 AWG)
8072	9 EA	FURNISH & INSTALLLL ELECTRICAL HANDHOLE
8074	32 SF	INSTALL GROUND MOUNTED SIGN
8075	46 SF	INSTALL OVERHEAD SIGN
8080	3 EA	FURNISH & INSTALL GROUND ROD - 3/4 INCH DIAMETER x 10 FOOT LENGTH
8081	90 LF	FURNISH & INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
8084	300 LF	FURNISH & INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8085	340 LF	FURNISH & INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8087	1050 LF	FURNISH & INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
8088	300 LF	FURNISH & INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8091	1040 LF	FURNISH & INSTALL 2 IN. PVC SCHEDULE 80 CONDUIT- TRENCHED
8093	1 EA	INSTALL CONTROLLER & CABINET - BASE MOUNT

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT.

STANDARD NO. MD-104.00 - 104.00-12

STANDARD NO. MD-104.31-01 (FLAGGING OPERATION)

STANDARD NO. MD-104.33-01 (SHOULDER WORK)

STANDARD NO. MD-104.35-01 (LANE SHIFT)

STANDARD NO. MD-104.32-02 (INTERSECTION FLAGGING OPERATION)

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. LAWRENCE E. ELLIOT
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 841-1019

MR. JOHN S. MAYS
DISTRICT UTILITIES ENGINEER
PHONE: (410) 841-1039

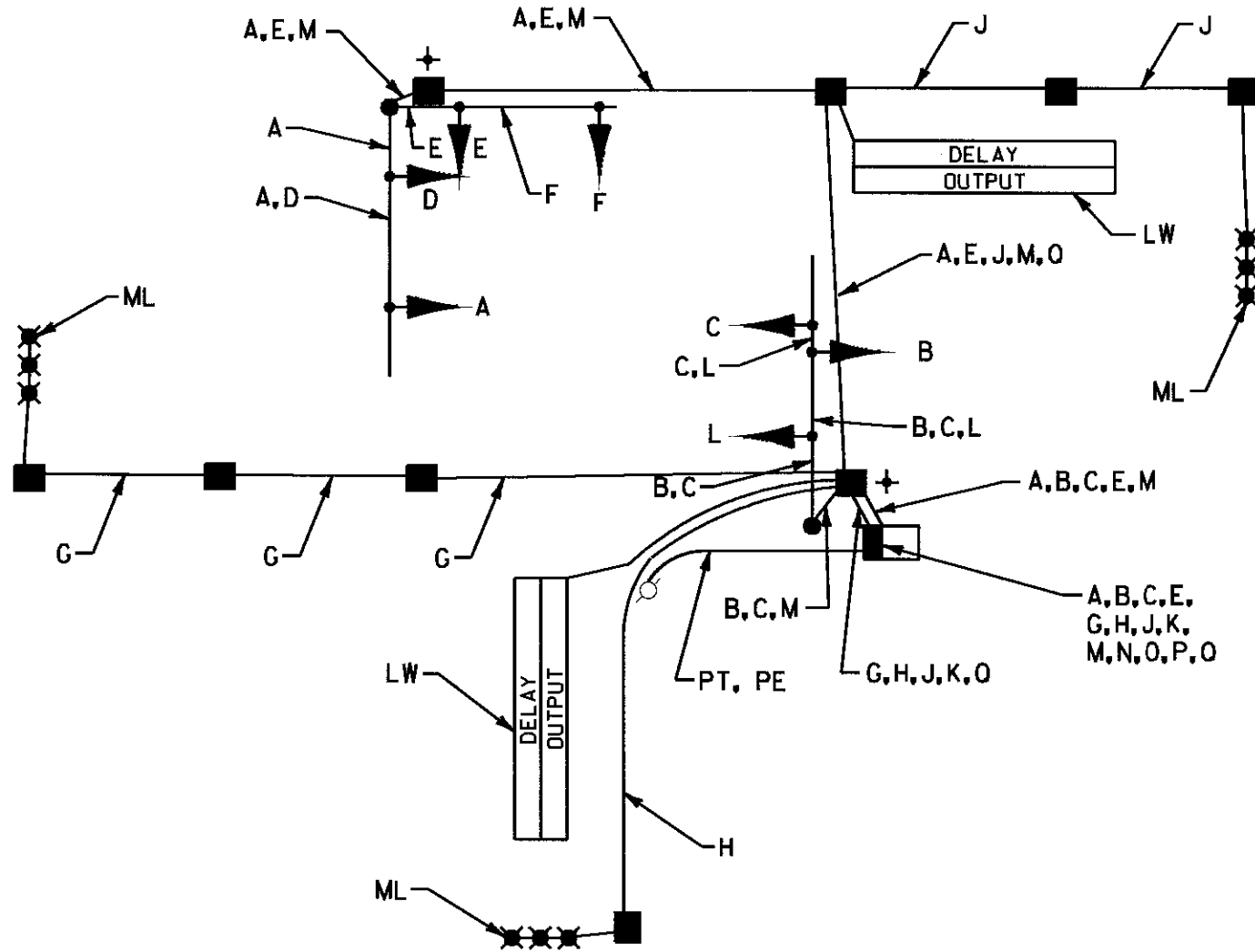
MR. CHUCK E. GEORGE
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 841-1013

MR. RICHARD L. DAFF, SR.
CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7630

WIRING DIAGRAM

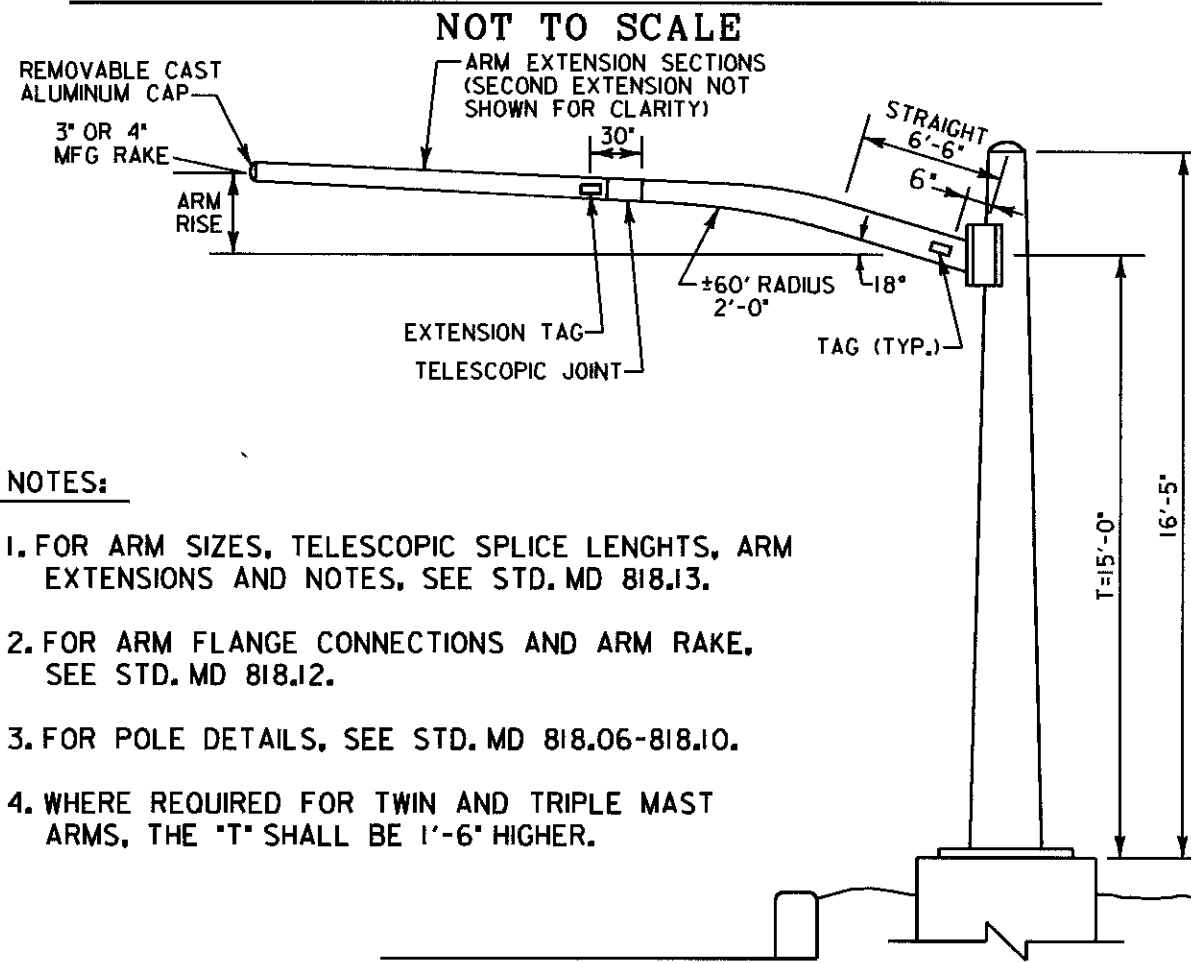
WIRING KEY

- A
B
C } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- D
E
F
L } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
- K
O } 2-CONDUCTOR ELECTRICAL CABLE, ALUMINUM SHIELDED (NO. 14 A.W.G.)
- G
H
J } MICROLOOP PROBE LEAD-IN
- M } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
- N
O
P } 1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)



LW - LOOP WIRE (NO. 14 A.W.G.)
ML - MICROLOOP PROBE SET
PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
+ - 3/4 IN. X 10 FT. GROUND ROD

15'-0" "T" STEEL POLE DETAIL



NOTES:

- FOR ARM SIZES, TELESCOPIC SPLICE LENGTHS, ARM EXTENSIONS AND NOTES, SEE STD. MD 818J3.
- FOR ARM FLANGE CONNECTIONS AND ARM RAKE, SEE STD. MD 818J2.
- FOR POLE DETAILS, SEE STD. MD 818.06-818J0.
- WHERE REQUIRED FOR TWIN AND TRIPLE MAST ARMS, THE "T" SHALL BE 1'-6" HIGHER.

PHASE CHART

	1	2	3	4	5	6	7
	(R)	(R)	(Y)	(R)	(R)	(R)	(R)
	(Y)	(Y)	(G)	(Y)	(Y)	(Y)	(Y)
	(G)	(G)	(R)	(G)	(G)	(G)	(G)
PHASE 2 + 6	G	G	G	G	G	R	R
2 + 6 CHANGE	Y	Y	G	G	G	R	R
PHASE 2 + 5	R	R	G	G	G	R	R
2 + 5 CHANGE	R	R	G	G	G	R	R
PHASE 4	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	Y	Y
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R



Whitman, Requardt
and Associates, LLP

801 South Caroline Street
Baltimore, Maryland 21231
(410) 235-3450



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety

TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET

MD 256 and Franklin Manor Road

DRAWN BY: B. MARTINE
CHECKED BY: N. LEARY
SCALE: NONE
DATE: 9/3/02

F.A.P. NO.
S.H.A. NO. XX1065485
COUNTY: Anne Arundel
LOG MILES:

TS NO.
TS-4167
T.I.M.S. NO.
E973
SHEET NO.
2 OF 2